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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,814	03/09/2004	M. Michael Pitts JR.	111732.00012	2055
34282	7590	12/09/2004	EXAMINER	
QUARLES & BRADY STREICH LANG, LLP ONE SOUTH CHURCH AVENUE SUITE 1700 TUCSON, AZ 85701-1621			LEADER, WILLIAM T	
			ART UNIT	PAPER NUMBER
			1742	

DATE MAILED: 12/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/796,814

Applicant(s)

PITTS ET AL.

Examiner

William T. Leader

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3-9-2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-3 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 of U.S. Patent No. 5,591,317 in view of Gibbs (4,886,593). Instant claim 1 recites the use of an electrostatic generator comprising a vitrified ceramic tube of unibody construction having an integrally-sealed end defining an inner cavity with an inner wall; conductive material contained within the inner cavity and disposed in intimate contact with the inner wall, electrically-insulated sealing means for providing hermetic closure to the inner cavity, and electrical means for energizing the conductive material with a static electromotive force. Such a generator and means for creating an electrostatic field between the generator immersed in water and an electrical ground are recited in the claims of the '317 patent.

3. The instant claims differ from the claims of the '317 patent by reciting the use of the generator in a method for reducing the formation of biofilm deposits on a wall in a water system. As indicated in the parent application, the Gibbs patent is directed to a process for destroying or inhibiting growth of bacteria and other microorganisms in water systems (column 1, lines 6-11). Gibbs recognizes that the use of capacitive electrostatic devices in varied water systems for descaling or corrosion control is known (column 1, lines 18-40). The patent is based on the discovery that the application of an electrostatic field of sufficient intensity may be used to kill or inhibit the growth of bacteria (column 1, lines 41-44). Gibbs observes that electrostatic electrodes operated at 5,000-60,000 volts had been used for descaling, but had not been used for killing or inhibiting the growth of bacteria (column 2, lines 18-21). The electrostatic field generator of Gibbs is illustrated in figure 1, and includes a tubular member 3 of insulating material and electrode 7 which fits closely inside the tubular member. The configuration of the generator of Gibbs generally corresponds to that of the generator illustrated in figure 1 of the instant application. While it is known to insert an electrode in a tank or vessel, Gibbs prefers to locate the electrode in the piping of the system to provide the strongest possible field (column 2, lines 36-41 and 62-68). The water serves as the ground connection (column 3, line 17). This corresponds to the embodiment illustrated in figures 5 and 6 of the instant application. In addition to observing that electrostatic electrodes have been used at voltages of 5,000-60,000 volts as noted above, Gibbs teaches connecting the electrostatic generator to "a high voltage DC current of the order of 5,000 volts or upwards to provide an electrostatic field in the water" (column 4, lines 11-14). This range overlaps the range of greater than

about 10,000 volts recited in claim 2, and greater than about 30,000 volts recited in claim 3. Gibbs teaches that it may be desirable to supply a DC voltage of sufficient intensity to produce a small current leakage of a few milliamps. While Gibbs may indicate that is preferable, it is not required, and providing a device without leakage current is considered to correspond to a nonpreferred embodiment of Gibbs. Gibbs discloses that the tubular member 21 of electrically insulating material may be formed of a single piece (column 5, lines 12-19).

4. In view of the teaching of Gibbs it would have been obvious to have utilized the electrostatic generator of the '317 patent to reduce formation of biofilm deposits on a wall in a water system because Gibbs discloses that the use of an electrostatic generator is effective in inhibiting the growth of bacteria.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William T. Leader whose telephone number is 571-272-1245. The examiner can normally be reached on Mondays-Thursdays and alternate Fridays, 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King, can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wt
William Leader
December 6, 2005

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